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AN

INTRODUCTORY LECTURE

TO THE COURSE OF

INSTITUTES OF MEDICINE, &c.

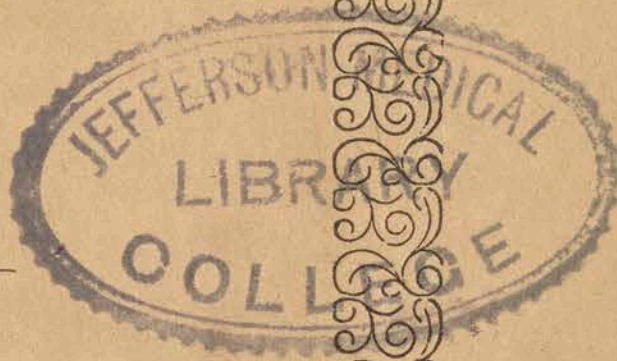
IN

JEFFERSON MEDICAL COLLEGE,

DELIVERED NOV. 4, 1844.

BY PROFESSOR DUNGLISON.

PUBLISHED BY THE CLASS.

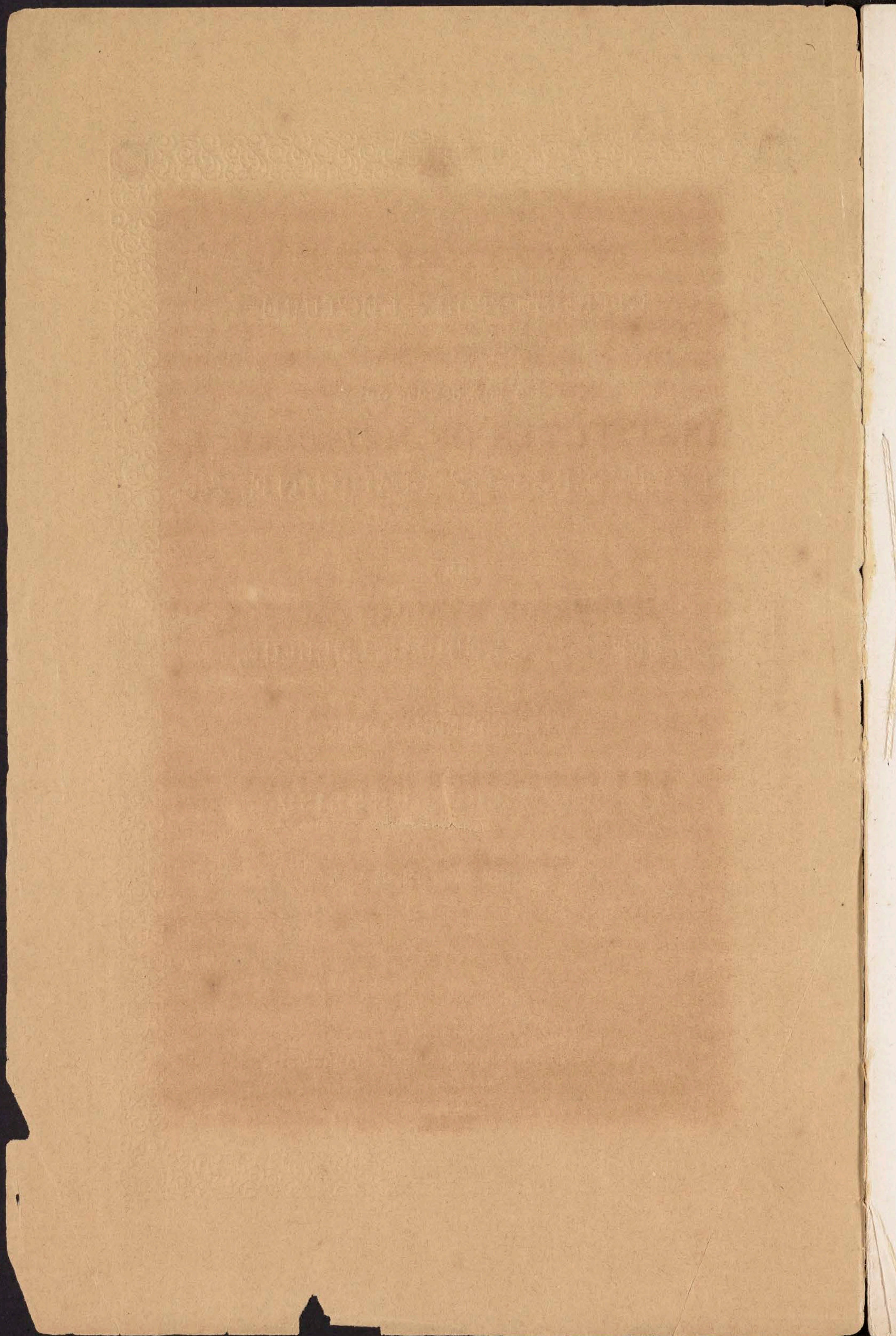


PHILADELPHIA:

B. E. SMITH, PR., COR. SECOND AND MARKET STS.

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Franklin Bache, Esq.

Philadelphia, Nov. 15th, 1844.

PROF. DUNGLISON,

Dear Sir:

At a meeting of the Students of Jefferson Medical College, on Tuesday the 12th inst., J. P. Andrews of Pa., Prest., and A. H. Hoff, of N. Y., Sec'ry.; the following gentlemen were appointed a committee to represent the Class in soliciting for publication, with sentiments of regard and esteem, your Lecture introductory to the course on the Institutes of Medicine.

J. M. RUFFIN, Miss.
T. R. PHILBRICK, Me.
H. C. BECKFORD, N. H.
E. C. DYER, Mass.
J. LESSEY, Conn.
CHAS. MARTIN, N. Y.
CHAS. RIDGWAY, N. J.
J. H. LEFEVRE, Pa.
S. C. WILLIAMS, Del.
L. M. STILLWEL, Md.
G. F. BIGELOW, D. C.
ALEX. JONES, Va.
WM. A. BOYD, N. C.

J. E. WHALEY, S. C.
WM. R. BROWN, Ala.
JNO. B. DRAUGHON, La.
A. S. COLE, Florida.
T. R. POTTER, Ohio.
J. G. B. PETTYJOHN, Ind.
J. L. ORD, Mich.
G. B. TYLER, Ky.
J. L. THOMPSON, Tenn.
T. M. FERGUSON, Canada.
R. SOUTHERLAND, N. Scotia.
J. C. NEVES, S. America.
EUGENE BILLON, France.

H. R. BRANHAM, Geo., Sec'ry. of Com.

Philadelphia, 109 S. Tenth st.

OCTOBER 18, 1844.

GENTLEMEN :

The Introductory Lecture, which you kindly solicit for publication, I need hardly say, was never destined for that purpose. I cheerfully, however, give it to you to dispose of as you

may think fit,—request in of you to state to the Class how sensible I am of this mark of their attention ; and to believe me, in all sincerity,

Faithfully your Friend and Servant,

ROBLEY DUNGLISON.

Messrs. J. M. RUFFIN, T. R. PHILBRICK, &c., &c., &c., Committee of the Students of Jefferson Medical College.

INTRODUCTORY.

GENTLEMEN:

The return of chill November

“ ————— On the birth
Of trembling winter,”

brings with it a renewal of those duties, which are so pleasing to the zealous instructor; and draws closer ties, which absence may have relaxed for a time, but which can never be wholly unloosened.

Amongst my auditors are many who have already attached, or are about to attach, themselves to this Institution: others whose choice has fallen on kindred establishments engaged in the same noble cause. To all I offer, on the part of my colleagues, a cordial welcome to this city, the great seat of medical learning on this continent. We all form part, or are destined to form part, of the republic of medical science. We all drink at the same fountain. We are all brethren; and every year appears to exhibit, that we are more and more impressed with this sentiment.

Many of you, again, have listened, for one or more sessions, to themes of instruction delivered in this institution or elsewhere. You have already passed the novitiate, and are aware of the intellectual banquet, which has to be spread before you. You have imbibed a fondness for the profession of your choice, and are restless until you have again the opportunity of drawing from the same sources the lessons of rational experience. You may be familiar with the teachers of your selection, and may have a full appreciation of their modes of communicating knowledge, and their capacities for the responsible position in which they are placed. Your

anxiety is only for the future, for the completion of that education, which has brought you hither from every part of this continent, and even from foreign shores; and you look to the termination of another session, as to the goal of your ambition, and the crowning act of all your labors. You have, indeed, but to labor. Each of your preceptors will be found ever ready and anxious to devote his time and his talents to your improvement. No stone will be left by them unturned to imbue you with correct principles, and to instil into your minds the results of accurate observation and reflection. In the lecture room, at the bedside, and in the closet, all will be ready to smoothe away difficulties that may beset your paths;—and to prepare you for the great and trying occasion, which is anticipated by every student with solicitude not unmixed with dread—it will be the care of those who are to be the judges of your qualifications, and who are as anxious for your success as yourselves, that no reproach shall rest upon them for not having most zealously, and most energetically, presented, and urged upon you, the truths, with which it is essential for you to become possessed before you can be regarded as qualified to practise a most exalted, most useful, but, in unqualified hands, most perilous avocation.

Others of you, my young friends, are within the walls of a medical college for the first time. To you anxiety presents itself in another shape. You have obtained a certain amount of knowledge from the perusal of medical books, and from the office instruction of preceptors. You have now to pursue the study in a different manner, and you are naturally solicitous for the result. Unacquainted with the capabilities of your professors;—unaccustomed to listen to instruction conveyed orally, the first impression may be discouraging to you: the rapid succession of lectures, embraced

in the curriculum of a well organized medical school, may appear to you, at first, to demand an amount of assiduity and ability, which you do not fancy that you possess. It may seem to you to be impracticable to fathom the profundity of the science ;—but this feeling will soon pass away. You will become gradually habituated to listen, and to comprehend, and store away the facts and arguments of the perspicuous teacher : your minds will become expanded ; and day after day will impress you with the gratifying conviction, that you are accumulating knowledge, which will facilitate your future progress in life, and render you important to your fellow men.

Many of you, too, have left your home, “the resort of love and joy,” and are thrown upon the world unaccustomed to act for yourselves ;—for the first time separated from those who have tenderly watched over your helpless infancy and ripening manhood, and, who are looking forward to the time when they shall again clasp you to their bosoms, and rejoice at the progress which you have made towards extended usefulness and distinction. What a stimulus to honorable exertion ! Let it encourage each of you amidst the desponding feelings, which you experience on being separated from all that are dear to you, and on being thrown, for the first time, among hundreds of thousands,—a solitary being even in the midst of multitudes. These feelings of solitude will however rapidly vanish when the mind becomes engaged in listening to, and reflecting upon, the facts and doctrines, which will be daily taught you ; yet recollect—never forget—that whatever may be the energy and other qualifications of the teacher, your ultimate success in your studies must be mainly dependent upon your own exertions. The remark, that every man, who has attained eminence in science, was essentially self-made, is in-

disputably just. Natural endowments may communicate a facility of conception and execution, yet commanding distinction can only be attained by well directed, well sustained, and strenuous efforts. No collegiate honors, no matter whence obtained, will command success. I have yet to hear of the single case, in which eminence has resulted from anything but personal merit.

Gentlemen:—you have congregated here, from all quarters, at a period eminently favorable for the prosecution of your medical studies; in a town, that furnishes ample means to assist you in them, and which was distinguished, in this respect, when her population, now amounting to about 250 000 souls, was much more restricted. The City of Penn has always been celebrated for its charitable institutions, its hospitals and dispensaries, its establishments for the diffusion of knowledge, and the general absence of deranging influences calculated to divert the student from his pursuit of information. The number of its inhabitants far exceeds that of almost all the favorite seats of medical instruction of old; and, with the exception of Paris and Vienna, there is not at the present day one so populous. London, with her two millions, has never been the great resort of the medical student. It is only, indeed, within the last twenty years, that she has possessed an institution endowed with the power of conferring the degree of Doctor of Medicine. Hospitals, infirmaries, dispensaries, she has in abundance; but, from the distance at which they are situate from each other, they are not available for concentrated clinical instruction.

Never has there been a period in the medical history of this city so favorable for effective theoretical and practical teaching. The existence of different schools has incited all to a zealous, energetic, liberal, and, I hope, honorable competition. Able and eloquent instructors are daily engaged in

pouring forth the results of their own observation, and the accumulated wisdom of ages. Demonstrations—once too much neglected—are freely introduced into the lectures, in order to impress the intellect, through the eye, as well as the ear. Clinics have been established to render the student familiar with disease; and to exhibit not only the major operations of surgery, but those that are needed in every day practice—as it has been termed; and every honest teacher must admit, that as the brightest metals are capable of having their polish preserved, and even heightened, by appropriate friction, so has medical education been signally improved by the co-existence of professorships in different schools on the same branches of science.

It has been apprehended by many, that this intellectual friction might excite ungenerous warmth amongst professors, which could scarcely fail to be extended to the young and chivalrous student; and thus bring discredit upon a profession, which is, in its essence, most dignified, most exalted, most liberal. Yet, why should this apprehension have existed? Why should an ungenerous thought be harbored by any associations of members of our profession, who are engaged in the same honorable calling. Why should there be engendered among us base envy, which

“——wither's at another's joy,
And hates that excellence it cannot reach?”

How easy, as I have before said from this place, is it for two or more institutions to move onwards harmoniously towards one great goal; and to feel and act towards each other as devoted members of the same profession, competing only as to which can confer the greatest amount of benefit on those within their respective influence.

Abroad, again, never has the combined medical school of Philadelphia been so highly regarded. My estimable col-

league, who has lately visited Great Britain and the continent of Europe, could afford you ample evidence of the truth of this affirmation, from personal intercourse with the most distinguished members of the profession in those countries, whose attention to him as a favorable, and favored representative of the profession in this country, and of this institution, was almost overwhelming. Some of the fruits of that gratifying intercourse, I doubt not, he will spread before you: others are seen in important additions to the museum,—the gift to him of men who have done honor to the science; but his modesty may prevent him from detailing events *quorum magna pars fuit*. He will pardon me, therefore, for referring to one honor conferred upon him, inasmuch as it is elucidative of that desire, on the part of the profession in Great Britain, to be held in favorable estimation by others, which is always entertained by the wisest and the best. At the meeting of the *Provincial Medical and Surgical Association*, held at Northampton, England, in August last, and which does not number in its list many foreign associates, it was moved by Dr. Forbes—one of the most distinguished of living physicians—and resolved, unanimously, that my friend and colleague, who was prevented by sickness from being present, should be made an “*honorary corresponding member*,” and it is recorded in the printed journal of the association, that Dr. Forbes stated to the large assembly that Dr. Mütter had spoken in a flattering manner of the medical profession in Great Britain, “which”—says Dr. Forbes—“was so far satisfactory as coming from so eminent a man.”

Very recently, too, the Royal College of Surgeons of England has announced officially, that the hospitals and schools of surgery and medicine in foreign countries, from which certificates of the professional education of candidates for

the fellowship will be received by the college for the year, commencing on the first of August last, are those of Paris, Montpellier, Strasburg, Berlin, Vienna, Heidelberg, Bonn, Göttingen, Leyden, Pavia, New York, and Philadelphia. It is no real disparagement to other schools of our country, that they are not comprised in this list: the cause of their exclusion, doubtless was the want of knowledge on the part of the council of the college, as to their intrinsic regulations and merits.

So far as I know, this is the first public admission to *ad eundem* privileges of any of our medical schools by European institutions; although those of Philadelphia have been privately and equally recognized by many.

In concluding these preliminary remarks, it will not, I trust, be considered wanting in good taste, if I say a few words in regard to the present condition of this institution. At the termination of the session of 1840-41,—when two of my colleagues and myself were left alone as teachers, and a new organization became necessary,—in a valedictory address to my class, I ventured to state, from what I knew of the sentiments of several of the members of the Board of Trustees, that their desire, in making the new appointments and arrangements, would be to ensure, as far as was in their power, the harmony, stability and reputation of the institution, and I foretold that in the lapse of years her numerous alumni would be enabled to exclaim with exultation; —“It was from this flourishing and distinguished school, that we received the highest honors of our profession!”

And how has this prediction been fulfilled? In the session of 1840-41, the number of students was 163. In 1841-2, the first session of the new organization, it rose to 209; in 1842-3, to 229; and in 1843-4, to 341,—an unprecedented

increase of *one hundred and twelve*, in one session. The number of graduates augmented in a still greater ratio; from 47 in the session of 1842—3, to 117 in that of 1843—4.

It will be gratifying to the class of the present session to learn, that, thus far, the number of those who have entered my department is beyond what it has ever been since I have been connected with the college. I say not this by way of vain-glory, but with feelings of thankfulness for the signal evidence it affords of the elevated estimation, in which the institution is held by the profession of the union, for its opportunities of affording sound theoretical and practical instruction.

Gentlemen: It has always appeared to me injudicious, at the commencement of a course of lectures, to enter immediately and minutely into the history of any of the branches of medical knowledge; and one of the most cogent objections to this is—that the lecturer is constantly compelled to allude to topics with which it is not to be presumed that the student can be sufficiently acquainted. What, for example, would be the value or abiding impression of the information, were I to detail the successive discoveries of the histologist, unless you had been previously instructed—which is not to be supposed—of the nature of such discoveries. But, although in this point of view, allusion to history may be of questionable advantage, no better opportunity is afforded the teacher than at the commencement of a session for glancing in a general manner at the past, comparing it with the present, and inferring as respects the future.

Such reminiscences are often well adapted for diminishing our pride in what are regarded as modern improvements, and for inducing us to form a more exalted opinion of our brethren in ancient periods.

The credit of original conception, has, indeed, been often awarded for observations and opinions, which had been inculcated ages before ; escaped notice ; and been subsequently re-propounded ; the ancient and the modern being equally entitled, however, to the credit of originators.

Prior to the age of Hippocrates, no science of medicine existed. The priests obtained from the votive tablets, hung up in the temples, records of cases and of reputed cures by remedies prescribed empirically ; but we have no evidence, that any attention had been paid to the relation between the symptoms and causes and the morbid condition. Pathology, in other words, was unknown. All medicine was in the hands of the priests, and it was associated with numerous superstitions, and exercised too often as a means of deluding and astounding the people, and of adding to the power of the priesthood. Hippocrates first endeavored to establish the relation between the various facts observed by him and his predecessors, and to deduce theory or general principles therefrom : hence, he has been commonly regarded as the father of the *rational* or *dogmatical system* of medicine, as it was then called. Others refer this sect to Draco and Thesalus, sons of Hippocrates, and to Polybus, his son-in-law ; but their illustrious ancestor is doubtless entitled to the credit.

“Although,” as a recent writer has remarked, “we can have no hesitation in pronouncing this to be the correct and legitimate method of pursuing the study of medicine, yet it must be acknowledged at the same time, that it is a method, which if not carefully watched, and strictly guarded by pru-

dence and sagacity, is exposed to the greatest danger of being corrupted by ignorance and presumption. Hence, we may easily conceive, that it would be liable to fall into the grossest errors, and to lie open to the most serious imputations, and that a fair plea would always be found for exclaiming against the introduction of what is termed theory into the practice of medicine." Thus, it was of old: the philosophical principles of Plato and of Aristotle were amalgamated into the systems of medicine,—nay, formed their very bases; experience and observation were rejected, and useless subtleties, which to us at the present day are unintelligible, occupied the attention of the physician.

The absurdities, thus engendered, gave rise, in no great length of time, as might have been expected—to a complete revolution, and to the formation of a new sect, utterly opposed to the dogmatists, of which Serapion, of Alexandria, was the founder. This occurred shortly after the establishment of the Alexandrian school. Serapion had many followers among the ancients, who were distinguished for their abilities, and were termed *Empirics*. Two rival sects then usurped the domain of medicine—the *Dogmatists* or *Rationalists*, and the *Empirics*.

As the Dogmatists rejected all experience and observation, so the Empirics held, that the philosophy of the time was foreign to the art of medicine, and that all sound experience must be the result of observation alone.—It was deemed unnecessary to inquire into the etiology or causes of disease, except as regarded such as were evident; anatomy was discarded; and the dissection of bodies with the view of detecting the nature of disease was contemned:—in short, nothing but the evidence of the senses was admitted as the basis of medical knowledge.

To the latter of these sects, the Empirics, which long con-

tinued to include all the members of the profession, belonged the learned and classic Celsus. He manifestly, at least, favors the views which the Empirics adopted. Still, his remarks, after a brief consideration of the doctrines of the two sects, are such as, it seems to me, every enlightened physician of the present day would be willing to endorse,—that the true rule of practice must be deduced from a proper combination of reason and experience;—that without experience all preconceived theory would be vain and useless, and that by simple experience, without any attempt at generalization, we should frequently fall into gross errors, and be unable even to profit from the best experience. It is difficult indeed, for us to imagine how either sect could be able to confine itself rigidly within the rules of its own doctrines. As at the present day, there must always have been dogmatists, who could not consent to reject all observation, and empirics who felt constrained to theorize.

The Dogmatists and Empirics were ancient sects; but in all ages, from the periods to which allusion has been made downwards, there have been physicians, who pretended to be guided solely by a rigid attention to observation, and others who have indulged in the wildest and most visionary hypotheses, despising all observation; yet, at the present day few would admit, that they reject either reasoning or observation, and it may be safely affirmed that those few are unfit for the practical exercise of their elevated calling.

The closest approximation to the ancient sect of Empirics is the modern French *School of Observation*. "This school," says a recent American author, and able supporter, "is characterized by its strict adherence to the study and analysis of morbid phenomena and their relationships; by the accuracy, the positiveness and the minute detail, which it has carried into this study and analysis; and by its rejection as an essen-

tial or legitimate element of science, of all *à priori* reasoning or speculation. The spirit which animates, and guides, and moves it, is expressed in the saying of Rousseau, *that all science is in the facts or phenomena of nature and their relationships, and not in the mind of man, which discovers and interprets them.* It is the true *protestant* school of medicine. It either rejects as apocryphal, or holds as of no binding authority, all the traditions of the fathers,—unless they are sustained and sanctioned by its own experience. It appeals in all things directly to nature, and it asks—not what *may be?* or what *ought to be?* but what *is?*—not *how* things are? or *why* they are? but again *what* they are? Holding that medical, as well as all other science, should have but one aim and object, *to ascertain the actual constitution of things*,—it professes an entire scientific indifference as to the issue, and result of its researches, provided only that this issue and result approach, in the nearest possible degree, to the absolute truth; and it adopts and pursues what it conceives to be the only method and means of accomplishing this end.”

Yet schools of this kind have existed in all times, and, from the first moment that a medicinal agent was prescribed to the present day, physicians have professed to be observers and “to have but one aim and object, to ascertain the actual constitution of things.” Of the myriads of remedies brought forward, and, too often with exaggerated pretensions, we should scarcely be justified in affirming, that a single one was extolled without the propounder having satisfied himself that such was “the actual constitution of things;” and admitting, that a large mass of the recorded “facts,” as they have been termed, have been badly observed; it must be equally admitted, that they were accredited results of positive observation, and, therefore, not to be disregarded on light grounds

by a school which professes to be a school of observation, *par excellence*, "the true protestant school of medicine, which either rejects as apocryphal or holds as of no binding authority, all the traditions of the fathers, unless they are sustained by its own experience."

Gentlemen :—the distinguished head of this modern school—if it may be so termed—the indefatigable and philosophical Louis would hardly, we think, arrogate so much to himself and his system. To borrow his own language.—"It has been acknowledged, from time immemorial, that medicine is a science of observation; nay, it has been said, that it consisted solely in observation,—that is to say, it has been allowed, that nothing can be done in medicine save by means of well observed facts:"—and the causes to which he attributes the imperfection of medical science are, "on the one hand, imperfect observation, and on the other, the habit of making analyses, which are incomplete or dependent upon facts entrusted to the memory."

The great, the crowning merit of M. Louis has consisted in urging—and carrying into effect, with a tact, industry and talent worthy of all commendation, and for which he richly deserves the gratitude of the profession—an improved system of analysis by the employment of numbers or the calculation of probabilities applied to medicine. To this numerical method, the generic name of *statistique médicale* has been recently applied by certain of the French writers. Originally, the word *statistics* meant the science of states, from the German *staat*; but by an extension of signification by no means uncommon, a term, which was originally applied only to states, came to be extended so as to comprise, as at the present day, in its signification the numeral or numerical method, or numbers employed for the elucidation of any of the sciences of observation;—and the term "*medical sta-*

tistics” is now as well understood as “*medical jurisprudence*.”

The employment of numbers as a means of comparison is by no means new, yet in consequence of the term statistics being of modern origin, it has been presumed by many that numerical methods were unknown until very recent periods. They have, however, long been used in other branches of science, and their nonemployment in medicine, until of late, only shows, that our science has profited but little by the example of the more perfect sciences.

Impressed with the imperfect methods of observation that had previously existed, and were still existing, M. Louis proposed to introduce, as far as possible, the same mode of exact estimation as had been practised in chemistry, for example. “Doubtless,” he observes, “this department of learning had many learned men among its votaries previous to the last forty years; nevertheless, it is only within this last period that chemistry has made rapid progress. What means has it employed of late, which were not used before? It has demanded exactness, it has weighed and counted always when it was able to do so. It has taken rigid notice of everything which had any bearing upon a question. It has substituted a strict analysis for an imperfect and careless one. Its methods have been daily more and more precise, and its progress is rapid and constant. The same cause, which kept chemistry so long in its infancy—the want of rigid method—has weighed upon the destiny of medicine, and prevented its growth.”

Much, Gentlemen, has been written, of late, against the practicability of employing numbers or of *counting* in medicine, notwithstanding the valuable and precise information that has been afforded for ages—even from the time of Ulpian in regard to the laws that govern the movement of

the population, the calculation of probabilities as to the average duration of life, and afterwards as a guide to the insurance of lives, &c., &c. What are these but the application of numbers to elucidate the science of life! The nearest approximation to the truth in regard to facts or observed phenomena must obviously be deduced in this manner. It is the only accurate mode in which averages can be taken. Every practitioner, in all periods of history, has endeavored to carry in his recollection the precise difference which he notices from day to day in the condition of his patient; but this course must be far inferior to the record, which he daily makes approximately by numbers, from which he can deduce his averages. "Averages," as an able writer has observed, "may, in some sort, be termed the mathematics of medical science. The principle is one singularly effectual in obviating the difficulties of evidence already noticed, and the success with which it has been employed of late by many eminent observers affords assurance of the results that may hereafter be expected from this source."

It will not be contested by any one, that facts must be accurately observed before they can be made the basis of any calculation. It is clear, too, that averages deduced from a small number of observations may lead us into error. Tables of insurance of lives, calculated from the observation of one or two years, would certainly be fallacious; but all experience teaches, that those drawn from the calculation of a long series of years lead to most satisfactory results.

The numerical method is, however, more applicable to phenomena presented by the healthy or diseased economy than to therapeutics or the treatment of disease, which, after all, is the end and aim of all our studies. It is, confessedly, the most difficult of the departments of medical science, because in it is concentrated, or ought to be concentrated, a know-

ledge of every other; and, moreover, it requires—contrary to what has been affirmed by the empirics—I use the term in the good sense in which I have already employed it—it requires, I say, not simply observation, but the constant use of reason, to rectify the erroneous impressions, which imperfect observation—imperfect, that is, without it—so often occasions. A glance at the history of medicine exhibits, that the science has suffered more from faulty observation than from faulty theories. It will generally, indeed, be found, that theories have been based upon fancied observation.

“From the manner,”—says Dr. Gregory, in his *“Lectures on the Duties and Qualifications of a Physician,”* a work which I recommend you all to peruse and re-peruse,—“from the manner in which empirics, in all ages, have conducted themselves, it is not surprising, that their writings have tended so little to the advancement of the art; and that, on the contrary, they have had the greatest share in encumbering it with the many falsehoods under which it has labored so long, particularly that important branch which relates to the effects of medicines. It has been pretended, that such empirical books as I have alluded to may be useful to those who are not bred to the profession, and who wish only to acquire some knowledge of the practical part of physic. But this is so far from being the case, that these are the only people to whom such books are dangerous. A physician of real knowledge and practice may draw instruction, or catch hints, from facts related in an imperfect manner, which will either be useless, or tend to mislead others who have not these advantages. To such, all the circumstances relating to the exhibition of a remedy can never be too distinctly specified.”

On the occasion of every introductory lecture I have dwelt upon the heresy of trusting implicitly to simple observation, and of merely registering the prominent result; and I have

strongly urged a wise combination of dogmatism or rationalism with empiricism—to employ the language of the ancients—before we feel ourselves justified in recording our facts as guides for future action. That a patient has died, or recovered, may be self-evident, and the fact may furnish a datum for the calculations of the medical statistician ; but a knowledge of the precise agency of the different remedies employed in any case may demand an intimate acquaintance with the physiological, pathological and therapeutical bearings of the subject, and withal no little power of discrimination on the part of the practitioner. A case or two, placed upon record by distinguished members of our body, will illustrate more strikingly, by example, the essential difference between the information which simple observation might suggest, and that which would flow from observation conjoined with rational inquiry.

In my last introductory lecture, I alluded to a well known case, cited by Dr. Paris, in his life of Davy, in which Dr. Beddoes and Davy were about to *try* the effects of the inhalation of nitrous oxide gas for the removal of palsy, but having inserted a thermometer in the man's mouth, and the patient believing, that the thermometer was the curative agent, and saying that he felt something better, it was determined to administer no "laughing gas," but to repeat the application of the thermometer, and to trust to this alone, which was accordingly done daily for a fortnight, and at the end of this time he was dismissed cured.

Now, in this case, mere empirical observation, as I then said, would lead to the record, that the thermometer under the tongue cured a case of palsy. But the rational therapist is not satisfied with a knowledge of the fact, that the paralysis disappeared after the use of the thermometer. He does not record, that the thermometer is *good*—a common expression—in palsy. He ponders on the mode in which the

result was probably induced, and he is not long in discovering, that the instrument, in such case, must be classed with those agents, that produce their effects by the new impressions which they make on the nervous system through the external senses.

One more familiar illustration may be given. It is related, for an analogous purpose, by Dr. Moore, the distinguished author of *Zeluco*. The story is the prototype of many similar anecdotes that have been told since, and it is not an overdrawn picture of the mode in which experience must have been registered in days of yore ; nor is it, I fear, wholly without its application at the present day, especially to those who, without the observing and logical mind of Louis, consider themselves followers of his system, and rigid recorders of observed results—"sustained and sanctioned by their own experience"—in *their* view, the only test of truth.

"A French Student of Medicine," says Dr. Moore, "lodged in the same house in London with a man in fever. This poor man was continually teased by the nurse to drink, though he nauseated the insipid liquids that were presented to him. At last, when she was more importunate than usual, he whispered in her ear:—"for God's sake bring me a salt herring, and I will drink as much as you please!" The woman indulged him in his request, he devoured the herring, drank plentifully, underwent a copious perspiration, and recovered. The French student inserted this aphorism in his journal:—"A salt herring cures an Englishman in his fever." On his return to France, he prescribed the same remedy to the first patient in fever to whom he was called. The patient died, on which the student inserted in his journal the following caveat:—N. B.—*Though a salt herring cures an Englishman, it kills a Frenchman.*

And these were good honest examples of simple observation, of pure empiricism !

A just appreciation of the effects of therapeutical agents, and the determination of their action, whatever that may be, are properly regarded by M. Louis as the most important, and, at the same time, the most difficult part of the method of observing. So many disturbing influences have, indeed, to be borne in mind in the estimate, that the enquiry has appeared to some to transcend the powers of the human mind. "We must compare together,"—says that distinguished observer—"a great number of cases of the same disease of equal severity, some relating to subjects in whom the disease was left to itself; others of individuals to whom certain medicines were given. After doing this, we must study the action of the same therapeutical agent on those in whom the disease was severe, and on those in whom it was slight—on those in whom the remedy has been used in large or small doses, at a period near to, or remote from, the commencement of the disease. This last circumstance is very important. So likewise we must mention, whether the medicine is used alone, or in conjunction with other remedies. But not only does this method require much labor, it also supposes a considerable series of facts, the connexion of which is difficult, especially when treating severe affections, in which we are accustomed to frequently make new attempts, and which will not allow of our remaining a mere spectator of the progress of the disease. For it must be evident, that we do not seek to know, by approximation, what remedies have *appeared* to be more or less successful, but to demonstrate in a rigorous manner, that a certain remedy or certain method is useful or hurtful, and in different degrees, according to the manner in which we employ it."

'The necessity for such repeated observations to enable us

to make any accurate estimate of therapeutical agencies, has been felt and appreciated by every able medical statistician. But it is not easy to multiply observations to the requisite extent. Even M. Louis himself has been censured by M. Gavarret for having ventured to pronounce as to the limited efficacy of blood-letting in pneumonia, erysipelas of the face, and cynanche tonsillaris on the strength of one hundred cases of the first disease, forty-four of the second, and twenty-three of the third; and the latter gentleman lays it down as an undoubted principle, that every statistical enquiry, in order to furnish admissible indications, ought to consist of many hundreds of observations. Were this indispensable, it would be obviously impossible to arrive at any satisfactory knowledge in regard to the effect of remedies; for, amidst the numerous shades of difference in the manifestations of disease, it would be difficult—if not impracticable—from hundreds of cases of the same malady to find a dozen that are circumstanced exactly alike, and that would consequently admit of unquestioned therapeutical deductions.

The marked difference between the amount of information derivable from the system of observation inculcated by the school of Louis, when applied to the manifestations and to the treatment of disease, has impressed all observers. It is signally exhibited in the valuable works which have emanated from that school, even in those of the great master himself. Whilst his "Researches on Phthisis" are replete with accurate information on the pathological anatomy, semeiology, diagnosis, termination, prognosis and etiology of the disease,—on every thing that admits of being counted; the treatment is meagre and unsatisfactory, consisting of little more than a catalogue of curative procedures. Not a particle of therapeutical information is added to what we already possessed on the subject.

These remarks apply equally to the second edition, a translation of which has just been issued by the Sydenham Society, of London; and they are perhaps even more applicable to a treatise on typhoid fever, which has been published in this country by one of the disciples of Louis.

This essential difference between the applicability of the numerical method to diagnosis and to therapeutics is, in a great measure, the cause of the former being often attended to to the exclusion of the latter, and of the separation of what has been called, by some, the *science* from the *art* of medicine. As a matter of scientific research it might be interesting to understand disease, even if we did not attempt to cure it; but as practising physicians and philanthropists, the alleviation and cure of disease must be the grand desideratum. Yet it has been lamentable to witness the almost exclusive attention, which has been paid by many, of late years, to diagnosis. In hospital practice especially, the main object of the attending physician has too often appeared to be, to discover, by physical signs and vital phenomena, the precise disease, and then the treatment has been left to the resident student, the former priding himself on his skill and attention to the *science*, whilst he leaves to the latter, what he considers to be the *art* of medicine.

Hæmatology, or observation of the blood in disease,—as I stated on a former occasion,—has been usurping, of late, the attention of observers in France to the exclusion of many other important topics of inquiry. Blood is there drawn in almost all diseases, in order to detect, by the nicest evaluation, the ratio of its main constituents to each other; and after this has been determined, but little attention is in many cases paid to treatment.

The same exclusivism was observable, when, a few years ago, pathological anatomy was cultivated as the one thing

needful: and when in France, as elsewhere, morbid specimens were sought after, collected, arranged and classified with a zeal and enthusiasm which had no bounds, and tolerated no opposition. It was supposed to be the key that was to unlock every entrance to the temple of pathological science, and often have I heard observing, and less enthusiastic, but more sober judging, friends than those amongst whom they had sojourned whilst in France, express their conviction, on their return to this country, that it appeared to them regret was felt by the attending physician, when the sick got well by nature or by art—less frequently perhaps by the latter—for often, no treatment whatever was adopted, or one that was highly inefficient;—it appeared to them, I say, that regret was felt when the sick got well, as it disappointed them of opportunities for *post mortem* examination. Nay, only last year, as I stated on the same occasion, an eminent medical friend—himself a teacher in one of our medical schools, and a practised observer, who had just returned from Paris—informed me, that he could not resist the conclusion—it forced itself upon him—that the physician did not prescribe treatment in many cases, under the apprehension, that if he did, he might thereby disturb the *post mortem* appearances!

By another eminent friend, however, who has recently left Paris, I am told, that the attention to pathological anatomy is on the wane: and it will not be surprising, after the numerous mutations that have occurred, of late, in the sentiments of our brethren in France, if this valuable aid to diagnosis, and in a less degree to therapeutics, should experience the fate of whatever has been supported by exclusivism; and sink as far below its due estimation, as it previously soared above it. Against such a result it behoves every friend of science and humanity to exert himself manfully.

But the most important change of all in their sentiments

appears to be dimly foreshadowed in the work—the excellent work—of M. Valleix, entitled, “*Guide of the Practical Physician, or General Résumé of applied internal Pathology and Therapeuties*,” now in course of publication in Paris. The indications are the more important from the circumstance, that M. Valleix belongs to the modern French school of medical observation; and is one of those to whom M. Louis has dedicated the second edition of his *Researches on Phthisis*. The work of M. Valleix exhibits the desire now existing in France for productions of a practical character; and it traces the causes, which have produced there a demand for such works.

A very recent and accomplished writer, in the number of the *British and Foreign Medical Review* for October, which has just reached here,—in a critical notice of the work of M. Valleix, and of my own *Practice of Medicine*,—thus speaks of the utilitarian character of the present period in France, Great Britain and this country.

“M. Valleix, in his well written and well reasoned preface, traces—and we think successfully—the causes which in France have produced a demand for works of a practical character. The physiological school of Broussais, which, though in the main false, had mingled with it enough of truth to give it an air of great plausibility, had obtained such entire possession of the minds of men, that tradition was interrupted, medical ‘history was become a dead letter,’ the yoke of authority was broken: but this medical revolution was shorter lived than have proved certain political convulsions. Observation, directed to the object of really illustrating the point in dispute—and it was so directed by that first of medical logicians, Louis—speedily demolished, even before its founder had quitted the scene, that ill-based fabric, the physiological system. But the traditional lore, de-

rived from antiquity, had been extinguished by this system, whilst this had in its turn fallen before close observation and logical reasoning ; and the followers of Broussais,—in other words, almost the entire existing generation of French physicians—were at sea without a compass. Hence, has arisen a demand for safe guides of practice, from an immense majority of practitioners of France.”

“From similar, but not identical causes,—for the doctrines Broussais had but little influence on the British mind,—the same demand exists in this country, [Great Britain]. In the early part of this century, especially after the publication of the works of Laënnec, the current of the public mind set strongly towards pathological anatomy. Great expectations were entertained from it, and were, to some extent, realized in the improvement of diagnosis. But this result was not of a nature perfectly to satisfy the spirit—essentially utilitarian—of the profession in this country. They might for a time study medicine as an abstract science, but it would only be in the expectation of improvements in the *art* speedily resulting from it. But these results did not necessarily or speedily flow from pathological research. To recognize and name a disease was found to be one thing; to cure it, another: the latter did not flow as a corollary from the former: it occurred as a contingency infinitely more rare than was expected; and disappointment was the result. A change came o’er the spirit of the age; “we want books useful at the bedside,” was the cry; and, at once, as an indication of the existence of this demand, and as a supply to meet it, the press poured fourth ‘Cyclopædias of Practical Medicine,’ ‘Libraries,’ ‘Dictionaries,’ and treatises on the same subject, in rapid succession, from Craigie to Watson. Our trans-atlantic brethren abate nothing, as is well known, of the practical and utilitarian character of the Anglo-Saxon race,

whence they are descended, and were just as likely as ourselves to be soon weary of contemplating and classifying morbid products, as some would objects of natural history, provided they led to no tolerably prompt result in the saving of life, or the alleviation of suffering. With them, too, the demand is for therapeutics, and to meet this demand we have (with others) the work of Dr. Dunglison."

Gentlemen: I have spoken of the signal difference between the numerical investigation of disease, and of therapeutical agencies, and this must, I apprehend, continue. It may be diminished, but can never perhaps be removed. An accurate appreciation of facts—of numerous well observed facts—is essential to both. A knowledge of the healthy and diseased functions, or of physiology and pathology, and of the ordinary effects of therapeutical agents on those functions, obtained by careful and repeated observation, must be the basis of that enlightened theory, which necessarily leads to enlightened practice; and great mischief would result to both, were we to discard all rational therapeutics, and restrict ourselves to mere observation. The complex functions, executed by the human organism, are so modified by multitudinous external and internal influences, which are inappreciable; so much agency is perpetually exerted by the *moral* over the *physique*, that no comparable facts can be obtained in sufficient number to admit of any accurate numerical deduction; and, consequently, we must either treat disease in accordance with principles suggested by conjoined observation and reason, experiment for ourselves *ab initio*, or resign our faith to the asserted observation and experience of others; and of these, which of the legion shall we select as masters? It is fortunate, Gentlemen, that we are possessed of such principles in medicine. Without them we should be unable to meet morbid manifestations, which present themselves to us for the first time. "He,"—

says Abercrombie, the physician and psychologist,—“who follows certain arts or practical rules, without a knowledge of the science on which they are founded, is the mere artizan or the empiric ; he cannot advance beyond the practice rules which are given him, or provide for new occurrences and unforeseen difficulties.”

These great principles, inculcated here, in these schools, are the same everywhere, and by their possession we can combat disease, wherever we meet it; amongst the equatorial heats, or the Siberian snows ; in the scorching presidencies of British India, and *a fortiori* in every portion of our own wide-spread territory ; the lofty mountain, and the lowly valley ; the pestiferous locality on the banks of the Mississippi, and the more salubrious regions where malarious influence is unknown. It is by their possession, that our medical officers of the army and navy know how to manage the diseases of all climes, when opportunity is offered them for adequate observation. That diseases are modified by climate or locality cannot be doubted, but the well instructed physician speedily seizes hold of the peculiarity.

Finally, Gentlemen.—Observe well for yourselves, carefully, repeatedly ; yet discard not the observations of others ; reject not at once as apocryphal, or hold as of no binding authority, all the traditions of the fathers, unless they are sustained and sanctioned by your own experience ; but rather respect them, and believe it possible that your own observation may have been defective. Under such feelings, subject them on the part of yourselves and others, to repeated scrutiny, and then, but not till then, abandon them, should they appear to be wanting in accuracy. Imbue yourselves profoundly with the great principles of physiology and pathology, simple and applied. Regard pathological anatomy as an aid, but an aid only, to diagnosis and therapeutics. Endeavor to comprehend

well the action of your remedies, and the great principles of general therapeutics; and thus, fortified and guided by all the lights, which illumine the profession in its present advanced and advancing condition, you will be enabled to shine as the well informed, observing, and rational practitioner, happy in your own resources, and a blessing to the community whose confidence is reposed in you. Employ well your time: avail yourselves of the splendid opportunities for improvement now presented to you; and let each of you feel, in the language of the great dramatist,—

“Like one that stands upon a promontory,
And spies a far-off shore where he would tread,
Wishing his foot were equal with his eye;
And chides the sea that sunders him from thence,
Saying—He’ll lade it dry to have his way.”

